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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,457	03/31/2004	Dennis J. Peterlin	6579-0133-1	8049

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EXAMINER

LANDRUM, EDWARD F

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/814,457

Applicant(s)

PETERLIN, DENNIS J.

Examiner

Edward F. Landrum

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/10/2005
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 1-11 and 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/6/2006.
2. Applicant's election without traverse of 12-28 and 30 in the reply filed on 4/6/2006 is acknowledged.

### ***Information Disclosure Statement***

3. The information disclosure statement filed 1/10/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sharpness of each cutting edge varying, or the sharpness of the first and second sides of each cutting edge pattern being greater than the sharpness of the crest or trough must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hastings (U.S Patent No. 3,654,701) in view of Goel et al (U.S Patent No. 5,795,648), hereinafter Goel, in further view of Mehregany (U.S Patent No. .

Hastings teaches (see Figures 4 and 5) a razor blade (4) with a non-linear, coplanar cutting edge. The razor blade (4) is made of a substrate. The cutting edge

patterns are substantially uniform in shape and size and each scallop shaped serration in the cutting edge pattern defines first and second sides, a trough, and a crest. The cutting edge pattern includes between 100 and 200 serrations per inch. If there are 200 serrations per inch that means each serration covers about .005 inches, which is about 127 microns. The amplitude of each serration is between .0005 inches and .005 inches, which is between about 12.7 and 127 microns.

Hastings teaches all of the elements of the current invention as stated above except a coating layer applied to the surface of the substrate; the cutting edge pattern being substantially offset from the substrate; the coating layer comprising one of a plurality of specific materials; and the substrate comprising one of a plurality of specific materials.

Goel teaches (see Figures 5 and 6) a metal razor blade (20) with a coating (21-23) made with diamond-like materials (Col. 2, lines 28-35). The substrate (20) is substantially offset from the cutting edge. Furthermore, Goel teaches a tip radius for the coated blade between 75 and 1000 angstroms (Col. 3, lines 39-41).

It would have been obvious to have modified Hastings to incorporate the teachings of Goel to add a coating to the razor blade to protect the razor blade from dulling, chipping, cracking, or eroding for the purpose of preserving the sharpness of the blade for a long period of time.

Regarding claim 22, Mehregany teaches (Col. 1, lines 25-33) that the radius of curvature of a blade will vary just due to imperfections in the blade due to the manufacturing process. Since Goel teaches that a blade can be considered very sharp

if the radius of curvature of the edge is between 75 and 1000 angstroms, it would have been obvious to allow the radius of curvature of the edge pattern to vary within an acceptable range for the purpose of decreasing the overall cost and time of the manufacturing process of the product while still providing an acceptably sharp razor.

Regarding claim 26, at the time the invention was made, it would have been an obvious matter of design choice to make the first and second sides of each cutting edge pattern of the modified device of Hastings sharper than the crest and trough because Applicant has not disclosed that making each crest and trough less sharp than each first and second side in the cutting edge patterns provides an advantage; is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the blade as taught by the modified device of Hastings or the claimed sharpness/dullness of parts of each cutting pattern would perform the same function of effectively cutting hair.

Therefore, it would have been prima facie obvious to modify the modified device of Hastings to obtain the invention as specified in claim 26 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of the modified device of Hastings.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Hastings in view of Balke (U.S Patent No. 6,382,068).

The modified device of Hastings teaches all of the elements of the current invention as stated above except the cutting edge pattern containing a plurality of micro-patterns.

Balke teaches (Col. 1, lines 5-8) providing a micro-pattern of finer cutting teeth on the cutting teeth of a cutting edge of a blade.

It would have been obvious to have modified the modified device of Hastings to incorporate the teachings of Balke to provide finer teeth on the cutting teeth of the blade for the purpose of providing a smooth, clean, and uniform cut across the entire blade.

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Hastings in view of Trankiem (U.S Patent No. 5,101,565).

The modified device of Hastings teaches all of the elements of the current invention as stated above except the cutting edge being single-faceted.

Trankiem teaches (Col. 1, lines 46-59) that it is old and well known to make a razor blade, which can be coated, single faceted.

It would have been obvious to have modified the modified device of Hastings to incorporate the teachings of Trankiem to make the cutting edge single-faceted for the purpose of decreasing production time.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Boland et al (U.S Patent No. 5,129,289), Sastri (U.S Patent No. 3,811,189), and Clipstone et al (U.S Patent No. 6,684,513) teach blades with coatings. Henderson (U.S Patent No. 4,534,827) teaches a radius for a cutting edge. Futterer et al (U.S Patent No. 3,169,317) teaches specific dimensions for a non-linear cutting edge. McDaniel (U.S Pattern No. 5,123,845) teaches a non-linear cutting edge with a micro-pattern.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EFL  
5/15/2006



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER